

**PROJECT SUMMARY**  
**Sulphur Creek Bank Stabilization Demonstration Project**  
**Environmental Review**  
**Feather River Coordinated Resource Management (FR-CRM)**  
**Plumas Corporation**  
**September 2007**

This project would provide a demonstration to landowners in the Sulphur Creek watershed of the type of restoration that is most feasible for bank stabilization in this severely eroded section of Sulphur Creek. The project would treat approximately 700 feet of actively eroding vertical bank on Sulphur Creek located 300 feet upstream of Highway 89.

Approximately 500 feet of bank would be laid back to a 1:1 slope. The toe of the slope would be planted with whole willow bushes and cuttings from nearby sources. The bank slope would be planted with willow wattles and other local native shrubs and seeds in steps that would break up the slope length and prevent rill erosion. Approximately 3,600 cubic yards of material would be cut from the slope, and 400 yards used to build the toe. Remaining material would be used to reduce 200 feet of over-steepened terrace slopes upstream of the cut slope, and to fill an abandoned meander bend. These areas would also be planted.

Seven boulder vanes would be installed to direct flow away from the newly sloped banks, into the center of the channel. Boulder vanes consist of a line of boulders that angle out from the slope toe, upstream at a 25-30 degree angle. Each vane would be constructed of 38 cubic yards of 3-4 foot diameter angular rock. To prevent scour, boulder vanes include footing boulders, as well as the boulders that are placed at bankfull elevation. Boulder vanes locally increase velocity, thus maintaining pool habitat as well as directing flow.

The Sulphur Creek Watershed Analysis and Restoration Strategy, completed by the FR-CRM in 2004, determined that bank stabilization within the entrenchment at the lower end of Sulphur Creek would be the most effective treatment for this area.

This grant application seeks funding to complete the CEQA process for the project. The landowners have already paid for the wildlife, botany and cultural resource surveys that are needed to complete the CEQA and permitting process. Once CEQA has been completed and permits received, we will apply to the CalTrans Environmental Enhancement and Mitigation Program (EEM) for implementation funding. CEQA and permits are needed before the project can be considered for that source of funding, however, the project does meet all other eligibility criteria.